

## **APPENDIX I**

### **Addendum to Indiana Department of Environmental Management Office of Water Quality 2014 Integrated Water Monitoring and Assessment Report**

#### **INTRODUCTION**

The Indiana Department of Environmental Management's (IDEM) Office of Water Quality submitted its Integrated Water Monitoring and Assessment Report (IR) to U.S. EPA as required by the Federal Clean Water Act (CWA) Section 305(b) on April 1, 2014. The IR included Indiana's 2014 303(d) List of Impaired Waters, which is required by the CWA Section 303(d). At the time of this submission, the 90-day public comment period for the 303(d) list mandated by Indiana state law (IC 13-18-2-3) was still underway. The public comment period was April 30 to July 29, 2014.

Although IDEM's April 1, 2014 submission contained all the elements required by CWA Section 303(d) and the Code of Federal Regulations, IDEM is submitting this addendum in keeping with U.S. EPA guidance (U.S. EPA, 2006), which recommends that states provide a summary of comments received along with the state's responses. This addendum, which is submitted as Appendix I of Indiana's 2014 Integrated Report provides a summary of the changes made to the 2014 303(d) list since April 1, 2014 and includes the following additional information:

- Full text copies of all public comments received on the 2014 303(d) list and the Consolidated Assessment and Listing Methodology (CALM) used to develop it (Attachment 1);
- A summary of the public comments received on the 2014 303(d) list and CALM published on April 30, 2014 and IDEM's responses (Attachment 2);
- IDEM's responses to U.S. EPA's comments on Indiana's 2014 Integrated Report and 2014 303(d) list, which were received on September 11, 2014 (Attachment 3);
- IDEM's responses to U.S. EPA's additional comments on Indiana's 2012 Integrated Report and 2012 303(d) list, which were received on May 19, 2014 (Attachment 4).

With this addendum, IDEM is also providing the following attachments to the 2014 IR:

- A revised version of Attachment 1 (IDEM's CALM), which contains a limited number of changes made for clarification purposes and to create more consistency with Indiana's water quality standards;
- A revised version of Attachment 2 (Status of Category 4 Waters), which provides updated segmentation information for a number of previously approved TMDLs, and;
- An updated 303(d) list that reflects all the changes made since IDEM submitted its 2014 303(d) list to U.S. EPA on April 1, 2014 (Attachment 5).

These revised documents supersede their previous versions provided to U.S. EPA on April 1, 2014 and are considered by IDEM to be finalized for the 2014 cycle.

## CHANGES MADE TO IDEM'S CALM

IDEM has made some changes to its CALM since its April 1, 2014 submittal. Table 6 was revised to provide additional information on the index period for assessments. In Table 7, the special requirements for dissolved oxygen assessments were removed to clarify the language and make the assessment methodology more consistent with Indiana's water quality standards.

IDEM also changed the methods for recreational use assessments with geometric mean data sets (those with at least five equally spaced samples collected over 30 days). In Table 7, IDEM removed the requirement that no more than one value may exceed 576 cfu/100 ml. This change was based on the fact that it is possible to have two values exceed 576 cfu/100 mL and still have a geometric mean less than 125 cfu/100 mL. Such circumstances would create a contradiction with Indiana's water quality standards and within the decision rule. The 576 cfu/100 mL benchmark, which applies to waters infrequently used for full body contact recreation, remains in place for data sets for which a geometric mean cannot be calculated (grab samples). IDEM also clarified that where both types of data set are available for the same waterbody – geometric mean results and grab sample results, the assessment decision will be based on the geometric mean result, which IDEM considers more representative.

## AUIDS RETIRED FROM INDIANA'S RECH INDEX BASED ON CHANGES IN SEGMENTATION

IDEM has identified a total of sixteen (16) additional assessment units that should be retired as a result of resegmentation (Table 1).

Table 1: Additional assessment units that should now be retired as a result of resegmentation.

BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME
LOWER WABASH	5120110010020	CLINTON	INB1012_01	STOWERS DITCH
LOWER WABASH	5120110010030	CLINTON	INB1013_T1001	GANGWER DITCH
LOWER WABASH	5120110010060	CLINTON	INB1016_T1001	SUGAR CREEK - UNNAMED TRIBUTARY
LOWER WABASH	5120110010090	BOONE	INB1019_T1004	SUGAR CREEK - UNNAMED TRIBUTARY
LOWER WABASH	5120110020060	MONTGOMERY	INB1026_T1005	SUGAR CREEK - UNNAMED OXBOW
LOWER WABASH	5120110060060	PARKE	INB1066_04	SUGAR MILL CREEK
UPPER WABASH	5120103010040	RANDOLPH	INB0314_T1001	HARSHMAN CREEK-UNNAMED TRIBUTARY
UPPER WABASH	5120103010040	RANDOLPH	INB0314_T1002	ARSHMAN CREEK-UNNAMED TRIBUTARY
UPPER WABASH	5120103020080	JAY	INB0328_T1026	REDKEY RUN
UPPER WABASH	5120103020080	DELAWARE	INB0328_T1027	HALFWAY CREEK
UPPER WABASH RIVER	5120103030020	DELAWARE	INB0332_00	BOSMAN DITCH
UPPER WABASH RIVER	5120103050020	GRANT	INB0352_T1002	HOLLIS DITCH AND UNNAMED TRIBUTARY
UPPER WABASH RIVER	5120103050020	GRANT	INB0352_T1003	LAKE BRANCH
UPPER WABASH RIVER	5120103050020	GRANT	INB0352_T1025	JEFFERSON DITCH
UPPER WABASH RIVER	5120103050100	GRANT	INB035A_01	WALNUT CREEK (DOWNSTREAM OF GARTHWAITE RD)
WHITE RIVER, EAST FORK	5120204040080	SHELBY	INW0448_00	BRANDYWINE CREEK

## IMPAIRMENTS REMOVED FROM THE 2014 DRAFT 303(D) LIST SINCE APRIL 1, 2014

### Impairments Removed from Category 5 to Category 4A Based on Total Maximum Daily Loads Approved by U.S. EPA after April 1, 2014

Since its April 1, 2014 IR submittal, U.S. EPA has approved two additional TMDLs developed by IDEM (Table 2). Based on these approvals, IDEM has moved a total of forty two (42) more impairments from Category 5 to Category 4A with this addendum (Table 3). IDEM also identified and addressed sixty one (61) impairments through development of these TMDLs that were not previously known (Table 4). These impairments were added directly to Category 4A upon approval of their TMDLs.

IDEM has also added two (2) previously identified impairments to Category 4A, which had been removed from Category 5A in the draft 2014 list (Table 5). These impairments were removed from the draft list based on Probabilistic Program data collected in 2010, which was assessed in 2013 and indicated full support. Data subsequently collected and assessed for the Deep River-Portage Burns Watershed TMDL indicate that the original impairments to biotic communities persist in these waters despite earlier evidence to the contrary. Because the required TMDL has been approved for these impairments, they have been placed in Category 4A.

Table 2: TMDLs approved by U.S. EPA after April 1, 2014.

TMDL KEY	APPROVAL DATE	TMDL DOCUMENT
46	7/14/14	<i>Escherichia coli</i> ( <i>E. coli</i> ) Total Maximum Daily Load Report for the Lower Big Blue River Watershed
47	9/26/14	Total Maximum Daily Load Report for the Deep River-Portage Burns Watershed

Table 3: Impairments removed from Category 5 to Category 4A based on TMDLs approved after April 1, 2014.

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
46	WHITE RIVER, EAST FORK	51202040201	RUSH	INW0421_01	LITTLE BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040202	RUSH	INW0422_01	BEAVER MEADOW CREEK	E. COLI
46	WHITE RIVER, EAST FORK	51202040202	RUSH	INW0422_T1001	LINN CREEK	E. COLI
46	WHITE RIVER, EAST FORK	51202040203	RUSH	INW0423_01	LITTLE BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040203	HANCOCK	INW0423_T1001*	DILLY CREEK	E. COLI
46	WHITE RIVER, EAST FORK	51202040203	RUSH	INW0423_T1001A	GILSON CREEK - UNNAMED TRIBUTARY	E. COLI
46	WHITE RIVER, EAST FORK	51202040205	SHELBY	INW0425_01	LITTLE BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040205	SHELBY	INW0425_T1001	LITTLE BLUE RIVER - UNNAMED TRIBUTARY	E. COLI
46	WHITE RIVER, EAST FORK	51202040802	RUSH	INW0482_01	SIXMILE CREEK	E. COLI
46	WHITE RIVER, EAST FORK	51202040802	RUSH	INW0482_01A	RIDGE RUN	E. COLI
46	WHITE RIVER, EAST FORK	51202040802	HANCOCK	INW0482_T1001	ANTHONY CREEK	E. COLI
46	WHITE RIVER, EAST FORK	51202040802	HANCOCK	INW0482_T1002	DILLY CREEK	E. COLI
46	WHITE RIVER, EAST FORK	51202040803	HANCOCK	INW0483_01	NAMELESS CREEK	E. COLI
46	WHITE RIVER, EAST FORK	51202040804	HANCOCK	INW0484_01	BIG BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040804	HANCOCK	INW0484_T1001	BIG BLUE RIVER - UNNAMED TRIBUTARY	E. COLI
46	WHITE RIVER, EAST FORK	51202040804	SHELBY	INW0484_T1002	BIG BLUE RIVER - UNNAMED TRIBUTARY	E. COLI
46	WHITE RIVER, EAST FORK	51202040804	HANCOCK	INW0484_T1003	PRAIRIE BRANCH	E. COLI
46	WHITE RIVER, EAST FORK	51202040805	SHELBY	INW0485_01	BIG BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040805	SHELBY	INW0485_02	BIG BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040805	SHELBY	INW0485_T1001	BIG BLUE RIVER - UNNAMED TRIBUTARY	E. COLI
46	WHITE RIVER, EAST FORK	51202040806	SHELBY	INW0486_01	BIG BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040806	SHELBY	INW0486_02	BIG BLUE RIVER	E. COLI
46	WHITE RIVER, EAST FORK	51202040806	SHELBY	INW0486_T1001	BIG BLUE RIVER - UNNAMED TRIBUTARY	E. COLI
46	WHITE RIVER, EAST FORK	51202040806	SHELBY	INW0486_T1002	BIG BLUE RIVER - UNNAMED TRIBUTARY	E. COLI

IR Appendix I: Addendum to Indiana's 303(d) List IDEM Submitted to U.S. EPA on April 1, 2014

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
47	GREAT LAKES	40400010501	LAKE	INC0151_01	MAIN BEAVER DAM DITCH	E. COLI
47	GREAT LAKES	40400010501	LAKE	INC0151_01	MAIN BEAVER DAM DITCH	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010501	LAKE	INC0151_01	MAIN BEAVER DAM DITCH	DISSOLVED OXYGEN
47	GREAT LAKES	40400010502	LAKE	INC0152_04	MAIN BEAVER DAM DITCH	E. COLI
47	GREAT LAKES	40400010502	LAKE	INC0152_04	MAIN BEAVER DAM DITCH	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010502	LAKE	INC0152_04	MAIN BEAVER DAM DITCH	NUTRIENTS
47	GREAT LAKES	40400010502	LAKE	INC0152_T1009	NILES DITCH	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010503	LAKE	INC0153_01	TURKEY CREEK	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010503	LAKE	INC0153_01	TURKEY CREEK	E. COLI
47	GREAT LAKES	40400010504	LAKE	INC0154_01	DEEP RIVER	E. COLI
47	GREAT LAKES	40400010504	LAKE	INC0154_01	DEEP RIVER	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010504	LAKE	INC0154_T1001	DEER CREEK	E. COLI
47	GREAT LAKES	40400010504	LAKE	INC0154_T1003	DEEP RIVER TRIBUTARY MERRILLVILLE	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010504	LAKE	INC0154_T1003	DEEP RIVER TRIBUTARY MERRILLVILLE	SILTATION
47	GREAT LAKES	40400010505	LAKE	INC0155_01	TURKEY CREEK	E. COLI
47	GREAT LAKES	40400010508	LAKE	INC0158_T1005	LITTLE CALUMET RIVER	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010509	PORTER	INC0159_T1001	WILLOW CREEK	E. COLI
47	GREAT LAKES	40400010509	PORTER	INC0159_T1001	WILLOW CREEK	IMPAIRED BIOTIC COMMUNITIES

\*Added to Category 4A as INW0423\_T1001, which is the AUID approved in the TMDL. This reach is actually indexed as INW0423\_T1002.

Table 4: Newly identified impairments moved from Category 2 or 3 to Category 4A based on TMDLs approved after April 1, 2014.

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
46	WHITE RIVER, EAST FORK	51202040806	SHELBY	INW0486_T1003	HOWELL DITCH	E. COLI
46	WHITE RIVER, EAST FORK	51202040807	SHELBY	INW0485_T1001A	SHAW DITCH - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010501	LAKE	INC0151_01	MAIN BEAVER DAM DITCH	NUTRIENTS
47	GREAT LAKES	40400010501	LAKE	INC0151_T1001	MAIN BEAVER DAM DITCH - UNNAMED TRIBUTARY	DISSOLVED OXYGEN
47	GREAT LAKES	40400010501	LAKE	INC0151_T1001	MAIN BEAVER DAM DITCH - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010501	LAKE	INC0151_T1001	MAIN BEAVER DAM DITCH - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010501	LAKE	INC0151_T1003	MAIN BEAVER DAM DITCH - UNNAMED TRIBUTARY	DISSOLVED OXYGEN

IR Appendix I: Addendum to Indiana's 303(d) List IDEM Submitted to U.S. EPA on April 1, 2014

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
47	GREAT LAKES	40400010501	LAKE	INC0151_T1003	MAIN BEAVER DAM DITCH - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010501	LAKE	INC0151_T1003	MAIN BEAVER DAM DITCH - UNNAMED TRIBUTARY	NUTRIENTS
47	GREAT LAKES	40400010501	LAKE	INC0151_T1003	MAIN BEAVER DAM DITCH - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010502	LAKE	INC0152_T1008	LITTLE CALUMET RIVER	DISSOLVED OXYGEN
47	GREAT LAKES	40400010502	LAKE	INC0152_T1008	LITTLE CALUMET RIVER	E. COLI
47	GREAT LAKES	40400010502	LAKE	INC0152_T1009	NILES DITCH	DISSOLVED OXYGEN
47	GREAT LAKES	40400010502	LAKE	INC0152_T1009	NILES DITCH	NUTRIENTS
47	GREAT LAKES	40400010502	LAKE	INC0152_T1009	NILES DITCH	E. COLI
47	GREAT LAKES	40400010503	LAKE	INC0153_T1001	TURKEY CREEK - UNNAMED TRIBUTARY	DISSOLVED OXYGEN
47	GREAT LAKES	40400010503	LAKE	INC0153_T1001	TURKEY CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010503	LAKE	INC0153_T1001	TURKEY CREEK - UNNAMED TRIBUTARY	NUTRIENTS
47	GREAT LAKES	40400010503	LAKE	INC0153_T1003	TURKEY CREEK - UNNAMED TRIBUTARY	DISSOLVED OXYGEN
47	GREAT LAKES	40400010503	LAKE	INC0153_T1003	TURKEY CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010503	LAKE	INC0153_T1003	TURKEY CREEK - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010503	LAKE	INC0153_T1004	TURKEY CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010503	LAKE	INC0153_T1005	TURKEY CREEK - UNNAMED TRIBUTARY	DISSOLVED OXYGEN
47	GREAT LAKES	40400010503	LAKE	INC0153_T1005	TURKEY CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010504	LAKE	INC0153_T1005	TURKEY CREEK - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010504	LAKE	INC0154_T1001	DEER CREEK	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010504	LAKE	INC0154_T1001	DEER CREEK	DISSOLVED OXYGEN
47	GREAT LAKES	40400010504	LAKE	INC0154_T1001	DEER CREEK	NUTRIENTS
47	GREAT LAKES	40400010504	LAKE	INC0154_T1003	DEEP RIVER TRIBUTARY MERRILLVILLE	E. COLI
47	GREAT LAKES	40400010504	LAKE	INC0154_T1004	DEEP RIVER - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010504	LAKE	INC0154_T1004	DEEP RIVER - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010504	LAKE	INC0154_T1005	DEEP RIVER - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES

IR Appendix I: Addendum to Indiana's 303(d) List IDEM Submitted to U.S. EPA on April 1, 2014

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
47	GREAT LAKES	40400010504	LAKE	INC0154_T1005	DEEP RIVER - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010505	LAKE	INC0155_01	TURKEY CREEK	DISSOLVED OXYGEN
47	GREAT LAKES	40400010505	LAKE	INC0155_T1002	TURKEY CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010505	LAKE	INC0155_T1002	TURKEY CREEK - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010505	LAKE	INC0155_T1003	TURKEY CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010505	LAKE	INC0155_T1003	TURKEY CREEK - UNNAMED TRIBUTARY	DISSOLVED OXYGEN
47	GREAT LAKES	40400010505	LAKE	INC0155_T1003	TURKEY CREEK - UNNAMED TRIBUTARY	NUTRIENTS
47	GREAT LAKES	40400010505	LAKE	INC0155_T1003	TURKEY CREEK - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010506	LAKE	INC0156_01	DUCK CREEK	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010506	LAKE	INC0156_01	DUCK CREEK	DISSOLVED OXYGEN
47	GREAT LAKES	40400010506	LAKE	INC0156_01	DUCK CREEK	NUTRIENTS
47	GREAT LAKES	40400010506	LAKE	INC0156_01	DUCK CREEK	E. COLI
47	GREAT LAKES	40400010506	LAKE	INC0156_T1003	DUCK CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010506	LAKE	INC0156_T1003	DUCK CREEK - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010507	LAKE	INC0157_01	DEEP RIVER	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010507	LAKE	INC0157_01	DEEP RIVER	E. COLI
47	GREAT LAKES	40400010507	LAKE	INC0157_P1001	GEORGE, LAKE	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010507	LAKE	INC0157_P1001	GEORGE, LAKE	E. COLI
47	GREAT LAKES	40400010507	LAKE	INC0157_P1001	GEORGE, LAKE	DISSOLVED OXYGEN
47	GREAT LAKES	40400010507	LAKE	INC0157_T1002	SPROUT DITCH	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010507	LAKE	INC0157_T1002	SPROUT DITCH	E. COLI
47	GREAT LAKES	40400010508	LAKE	INC0158_T1002	DEEP RIVER - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010508	LAKE	INC0158_T1002	DEEP RIVER - UNNAMED TRIBUTARY	E. COLI
47	GREAT LAKES	40400010509	LAKE	INC0159_01	LITTLE CALUMET RIVER	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010509	LAKE	INC0159_01	LITTLE CALUMET RIVER	E. COLI

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
47	GREAT LAKES	40400010509	LAKE	INC0159_01	LITTLE CALUMET RIVER	DISSOLVED OXYGEN
47	GREAT LAKES	40400010509	PORTER	INC0159_02	LITTLE CALUMET RIVER	E. COLI
47	GREAT LAKES	40400010509	PORTER	INC0159_02	LITTLE CALUMET RIVER	IMPAIRED BIOTIC COMMUNITIES

Table 5: Impairments removed from Category 5 with the draft list and added Category 4A with this addendum based on the Deep River-Portage Burns Watershed TMDL approved after April 1, 2014.

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
47	GREAT LAKES	40400010505	LAKE	INC0155_01	TURKEY CREEK	IMPAIRED BIOTIC COMMUNITIES
47	GREAT LAKES	40400010508	LAKE	INC0158_01	DEEP RIVER	IMPAIRED BIOTIC COMMUNITIES

### **Impairments Removed from Category 5 to Category 4A based on IDEM's Review of Segmentation Tracking for TMDLs Approved Prior to the Completion of its High Resolution Reach Index**

IDEM has identified a total of twenty three (23) impairments in Category 5 that are either already listed in Category 4A or should be based on the approved TMDLs shown in Table 6. These impairments are identified in Table 7. Some were identified through routine review of IDEM's 303(d) list and includes one (1) impairment added based on comments received from U.S. EPA (INB0742\_02). Others were identified as a result of IDEM's review of TMDLs approved prior to the completion of its High Resolution Reach Index in 2014. This review is ongoing and intended to ensure that the segmentation tracking provided for Category 4A is current and correct.

The TMDLs in which these impairments are addressed appear in Table 6. These changes also appear in Appendix H of the 2014 Integrated Report: Status of Category 4 Waters. IDEM has included a revised version of Appendix H with this addendum, which has been updated with the correct segmentation tracking information for these impairments.



Table 6: Previously approved TMDLs for which segmentation tracking has been map-verified.

TMDL KEY	APPROVAL DATE	TMDL DOCUMENT
10	12/13/2004	Total Maximum Daily Load (TMDL) for <i>Escherichia coli</i> ( <i>E. coli</i> ) for the Prairie Creek Watershed, Daviess County
17	7/21/2005	Total Maximum Daily Load for <i>Escherichia coli</i> ( <i>E. coli</i> ) for the Middle West Fork White River Watershed, Morgan, Owen, and Greene Counties
22	7/31/2006	Total Maximum Daily Load for <i>E. coli</i> Impairment Big Blue River Watershed, Henry and Rush Counties
23	8/3/2006	Total Maximum Daily Load for <i>Escherichia coli</i> ( <i>E. coli</i> ) for the Richland Creek Watershed, Greene, Monroe, and Owen Counties
33	4/2/2009	Final Total Maximum Daily Load for <i>Escherichia coli</i> ( <i>E. coli</i> ) For the West Fork Whitewater Watershed, Randolph, Wayne, Fayette, Henry, and Franklin Counties
35	9/24/2010	Total Maximum Daily Load for <i>Escherichia coli</i> ( <i>E. coli</i> ) for the Upper Wildcat Creek Watershed, Howard, Tipton, Grant, and Madison Counties
36	9/24/2010	Total Maximum Daily Load for <i>Escherichia coli</i> ( <i>E. coli</i> ) for the Middle Fork Wildcat Creek Watershed, Clinton, Carroll, Tippecanoe, and Howard Counties
39	9/7/2011	Total Maximum Daily Load for <i>Escherichia coli</i> ( <i>E. coli</i> ) in the Highland-Pigeon Creek Watershed and Total Phosphorous for Hurricane Creek, Gibson, Pike, Vanderburgh, Posey, and Warrick Counties
43	9/20/2012	Pigeon River Watershed Total Maximum Daily Load Study for <i>E. Coli</i> and Impaired Biotic Community (IBC)
44	9/20/2013	<i>Escherichia coli</i> and Impaired Biotic Community Total Maximum Daily Load Report for the Big Raccoon Creek Watershed
45	9/20/2013	<i>Escherichia coli</i> ( <i>E. coli</i> ) Total Maximum Daily Load Report for the Otter Creek Watershed

Table 7: Impairments removed from Category 5 to Category 4A based on segmentation tracking of previously approved TMDLs.

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
10	WHITE RIVER, WEST FORK	51202020707	DAVISS	INW0277_T1001	PRAIRIE CREEK – UNNAMED TRIBUTARY	E. COLI
17	WHITE RIVER, WEST FORK	51202011402	JOHNSON	INW01C6_02	PLEASANT RUN CREEK	E. COLI
22	GREAT LAKES	41000040405	ADAMS	INA0445_T1001	BLUE CREEK - UNNAMED TRIBUTARY	E. COLI
22	GREAT LAKES	41000040405	ADAMS	INA0445_T1002	DUER DITCH	E. COLI
22	GREAT LAKES	41000040405	ADAMS	INA0445_T1003	BLUE CREEK - UNNAMED TRIBUTARY	E. COLI
23	WHITE RIVER, WEST FORK	51202020301	MONROE	INW0231_T1002	LITTLE RICHLAND CREEK	E. COLI
33	GREAT MIAMI RIVER	50800030301	RANDOLPH	ING0331_01	NOLANDS FORK	E. COLI
35	UPPER WABASH RIVER	51201070101	TIPTON	INB0711_02	TURKEY CREEK	E. COLI
35	UPPER WABASH RIVER	51201070103	TIPTON	INB0713_T1004	TURKEY CREEK - UNNAMED TRIBUTARY	E. COLI
35	UPPER WABASH RIVER	51201070104	MADISON	INB0714_T1006	POLEY WALK	E. COLI
35	UPPER WABASH RIVER	51201070106	HOWARD	INB0716_T1001	IRWIN CREEK	E. COLI
35	UPPER WABASH RIVER	51201070108	HOWARD	INB0718_T1007	KOKOMO CREEK - UNNAMED TRIBUTARY	E. COLI
36	UPPER WABASH RIVER	51201070202	CLINTON	INB0722_01A	UNNAMED STREAM (CLINTON-CARROLL COUNTY LINE)	E. COLI
36	UPPER WABASH RIVER	51201070202	CARROLL	INB0722_T1010	WILDCAT CREEK, MIDDLE FORK - UNNAMED TRIBUTARY	E. COLI
36	UPPER WABASH RIVER	51201070202	CARROLL	INB0722_T1011	WILDCAT CREEK, MIDDLE FORK - UNNAMED TRIBUTARY	E. COLI



TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
36	UPPER WABASH RIVER	51201070402	HOWARD	INB0742_04	WILDCAT CREEK, LITTLE	E. COLI
39	OHIO RIVER TRIBUTARIES	51402020203	GIBSON	INE0223_03	BIG CREEK	E. COLI
43	GREAT LAKES	40500011003	STEUBEN	INJ01A3_01	PIGEON CREEK	E. COLI
43	GREAT LAKES	40500011008	LAGRANGE	INJ01A8_T1008	INLET TO LITTLE TURKEY LAKE	E. COLI
43	GREAT LAKES	40500011003	LAGRANGE	INJ01B3_03	PIGEON RIVER	E. COLI
44	LOWER WABASH RIVER	51201081201	BOONE	INB08C1_01	BIG RACCOON CREEK	E. COLI
44	LOWER WABASH RIVER	51201081201	BOONE	INB08C1_T1004	WELLS DITCH	E. COLI
45	LOWER WABASH RIVER	51201110402	CLAY	INB1142_T1003	ORCHARD RUN	E. COLI

### Impairments Removed from Categories 4A and 5 Based on Water Quality Improvements

Since IDEM's April 1, 2014 submittal of its Integrated Report, IDEM has identified another ten (10) previously identified impairments now meeting applicable water quality criteria. Six (6) of these impairments were listed in Category 5 on the draft 303(d) list submitted to U.S. EPA on April 1, 2014 (Table 8). The other four (4) are impairments have been addressed in TMDLs approved in previous cycles (Tables 9 and 10).

Table 8: Category 5 impairments now meeting applicable water quality criteria.

BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT	NOTES
GREAT LAKES	40400010502	LAKE	INC0152_04	MAIN BEAVER DAM DITCH	AMMONIA	Added to draft 2014 list based on Probabilistic Program data collected in 2010 and assessed in 2013. Data collected for the Deep River TMDL and assessed in 2014 indicates waterbody is meeting applicable water quality criteria.
GREAT LAKES	40400010502	LAKE	INC0152_04	MAIN BEAVER DAM DITCH	DISSOLVED OXYGEN	Added to draft 2014 list based on Probabilistic Program data collected in 2010 and assessed in 2013. Data collected for the Deep River TMDL and assessed in 2014 indicates waterbody is meeting applicable water quality criteria.
WHITE RIVER, EAST FORK	51202040805	SHELBY	INW0485_03	BIG BLUE RIVER	E. COLI	Added to Category 5 based on resegmentation; Lower Big Blue TMDL assessment indicates waterbody is meeting applicable water quality criteria.
WHITE RIVER, EAST FORK	51202040805	SHELBY	INW0485_T1002	FORMAN BRANCH	E. COLI	Added to Category 5 based on resegmentation; Lower Big Blue TMDL assessment indicates waterbody is meeting applicable water quality criteria.
WHITE RIVER, EAST FORK	51202040807	SHELBY	INW0487_01	BIG BLUE RIVER	E. COLI	Added to Category 5 based on resegmentation; Lower Big Blue TMDL assessment indicates waterbody is meeting applicable water quality criteria.
GREAT LAKES	40400010403	PORTER	INC0143_T1007	COFFEE CREEK - UNNAMED TRIBUTARY	E. COLI	Data collected for Little Calumet River Baseline Study indicates this waterbody is meeting applicable water quality criteria.

Table 9: Approved TMDLs for which water quality improvements have been identified.

TMDL KEY	APPROVAL DATE	TMDL DOCUMENT
6	4/9/2004	West Fork White River, Muncie to Hamilton-Marion County Line TMDL for <i>E. coli</i> Bacteria: TMDL Report
32	7/31/2008	South Fork Wildcat Creek Watershed Pathogen, Sediment, and Nutrient TMDL Development
34	9/29/2009	Total Maximum Daily Load Report for the Kankakee/Iroquois Watershed: Final

Table 10: Category 4A impairments now meeting applicable water quality criteria.

TMDL KEY	BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
6	WHITE RIVER, WEST FORK	51202010705	HAMILTON	INW0175_02	WHITE RIVER	E. COLI
32	UPPER WABASH RIVER	51201070308	CLINTON	INB0738_T1001	JENKINS DITCH	IMPAIRED BIOTIC COMMUNITIES
32	UPPER WABASH RIVER	<u>51201070309</u>	<u>CLINTON</u>	INB0739_T1001	MCCLELLEN FICKLE DITCH	E. COLI
34	UPPER ILLINOIS RIVER	71200011304	LAKE	INK01D4_02	GRIESEL DITCH	E. COLI

### Impairments Removed from Category 5 Based on IDEM's Routine Review for Errors and Omissions on its 303(d) List

IDEM's ongoing review of the 303(d) list for errors and omissions has resulted in five (5) additional impairments that may now be removed from Category 5 for the reasons shown in Table 11.

Table 11: Impairments removed from Category 5 based on IDEM ongoing review of its 303(d) list.

BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT	REASON
PATOKA RIVER	51202090301	DUBOIS	INP0931_01	HUNLEY CREEK	SILTATION	This impairment was inadvertently placed in Category 5 under its new AUID but was approved for Category 4C in 2006.
UPPER ILLINOIS RIVER	7120002040030	JASPER	INK0241_01	CURTIS CREEK	NUTRIENTS	IDEM has verified that previous assessments were based on insufficient data.
UPPER ILLINOIS RIVER	7120002040030	JASPER	INK0241_01	CURTIS CREEK	DISSOLVED OXYGEN	IDEM has verified that previous assessments were based on insufficient data.
UPPER ILLINOIS RIVER	7120002040030	JASPER	INK0241_T1004	YEOMAN DITCH	NUTRIENTS	IDEM has verified that previous assessments were based on insufficient data.
UPPER ILLINOIS RIVER	7120002040030	JASPER	INK0241_T1004	YEOMAN DITCH	DISSOLVED OXYGEN	IDEM has verified that previous assessments were based on insufficient data.

### Impairments Removed from Category 5 Based on Changes in Segmentation

IDEM has removed one (1) impairment from Category 5 based on resegmentation. The assessment unit shown in Table 12 was retired (see Table 1). IDEM has verified that the impairment associated with this reach correctly appears in Category 5 (INW0434\_01).

Table 12: Impairment to be removed from Category 5 based on changes in segmentation.

BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
WHITE RIVER, EAST FORK	5120204040080	SHELBY	INW0448_00	BRANDYWINE CREEK	E. COLI

## IMPAIRMENTS ADDED TO THE 2014 DRAFT 303(D) LIST SINCE APRIL 1, 2014

### Impairments Added to Category 5 in Response to Comments Received on Indiana's Draft 303(d) List

IDEM has added a total of nineteen (19) impairments back to Category 5 based on comments received from U.S. EPA on IDEM's Draft 2012 and 2014 303(d) lists (Table 13). IDEM's rationale for adding these impairments back can be found in its responses to U.S. EPA's comments in Attachments 2 and 3 to this addendum. IDEM determined that no additional changes were necessary at this time based on its review of public comments received on the draft 2014 303(d) list and CALM.

Table 13: Additional impairments added back to Category 5 based on comments received from U.S. EPA.

BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT	EPA Comments
GREAT LAKES	41000040407	ADAMS	INA0447_T1004	BLUHM DITCH	IMPAIRED BIOTIC COMMUNITIES	2014
UPPER WABASH RIVER	51201030511	GRANT	INB035B_01	MISSISSINewa RIVER	E. COLI	2012
UPPER WABASH RIVER	51201030601	GRANT	INB0361_01	MISSISSINewa RIVER	E. COLI	2012
UPPER WABASH RIVER	51201040705	CASS	INB0475_01	EEL RIVER	FREE CYANIDE	2012
UPPER WABASH RIVER	51201061201	WHITE	INB06C1_T1003	ACKERMAN-HEADLEE DITCH	IMPAIRED BIOTIC COMMUNITIES	2014
UPPER WABASH RIVER	51201070406	CARROLL	INB0746_03A	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	2012
UPPER WABASH RIVER	51201070406	CARROLL	INB0746_03B	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	2012
UPPER WABASH RIVER	51201070406	CARROLL	INB0746_03C	WILDCAT CREEK - UNNAMED TRIBUTARY	E. COLI	2012
LOWER WABASH RIVER	51201111501	SULLIVAN	INB11F1_01	BUSSERON CREEK	IMPAIRED BIOTIC COMMUNITIES	2012
LOWER WABASH RIVER	51201111504	SULLIVAN	INB11F4_T1003A	MUD CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES	2012
LOWER WABASH RIVER	51201111504	SULLIVAN	INB11F4_T1003A	MUD CREEK - UNNAMED TRIBUTARY	NUTRIENTS	2012
LOWER WABASH RIVER	51201111504	SULLIVAN	INB11F4_T1003B	MUD CREEK - UNNAMED TRIBUTARY	IMPAIRED BIOTIC COMMUNITIES	2012
LOWER WABASH RIVER	51201111504	SULLIVAN	INB11F4_T1003B	MUD CREEK - UNNAMED TRIBUTARY	NUTRIENTS	2012
GREAT LAKES	40400010509	PORTER	INC0159_T1001	WILLOW CREEK	DISSOLVED OXYGEN	2012
OHIO RIVER TRIBUTARIES	51402010404	SPENCER	INE0145_02	ANDERSON RIVER	IMPAIRED BIOTIC COMMUNITIES	2014
OHIO RIVER TRIBUTARIES	5140202040120	VANDEBURGH	INE024C_T1004	PIGEON CREEK	PCBs in FISH TISSUE	2014
GREAT MIAMI RIVER	50800030802	FRANKLIN	ING0382_02	WOLF CREEK	DISSOLVED OXYGEN	2012
GREAT LAKES	40500012204	ST. JOSEPH	INJ01N4_01	ST. JOSEPH RIVER	PCBs in FISH TISSUE	2014
PATOKA RIVER	51202090502	PIKE	INP0952_01	FLAT CREEK	DISSOLVED OXYGEN	2014

### Impairments Added to Category 5 based on Water Quality Assessments Completed after April 1, 2014

Since the submittal of its 2014 Integrated Report, IDEM has completed water quality assessments for the Little Calumet River Baseline Study and the Whitelick Creek TMDL, which is yet to be submitted for U.S. EPA approval. These assessments have resulted in the addition of four (4) newly identified impairments to Category 5 (Table 14).

Table 14: Impairments added to Category 5 based on new water quality assessments completed since April 1, 2014.

BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
UPPER WABASH RIVER	51201070308	CLINTON	INB0738_01	WILDCAT CREEK, SOUTH FORK	E. COLI
GREAT LAKES	40400010403	PORTER	INC0143_T1005	LITTLE CALUMET RIVER, EAST ARM - UNNAMED TRIBUTARY	DISSOLVED OXYGEN
GREAT LAKES	40400010403	PORTER	INC0143_T1005	LITTLE CALUMET RIVER, EAST ARM - UNNAMED TRIBUTARY	NUTRIENTS
WHITE RIVER, WEST FORK	51202011302	HENDRICKS	INW01D2_01	WHITE LICK CREEK	E. COLI

### Impairments Added Back to Category 5 Based on Changes in Segmentation

IDEM has identified three (3) impairments that should be added back under their new AUIDs (Table 15). These impairments were removed from Category 5 based on resegmentation but were not added back under their new AUIDs.

Table 15: Impairments to be added back to Category 5 based on changes in segmentation.

BASIN	HYDROLOGIC UNIT CODE	COUNTY	ASSESSMENT UNIT ID	ASSESSMENT UNIT NAME	CAUSE OF IMPAIRMENT
UPPER WABASH RIVER	51201030105	RANDOLPH	INB0315_T1005	MISSISSINAWA RIVER - UNNAMED TRIBUTARY	E. COLI
LOWER WABASH RIVER	51201100503	FOUNTAIN	INB1053_01	SUGAR MILL CREEK	E. COLI
WHITE RIVER, EAST FORK	51202040304	SHELBY	INW0434_T1003	CLARK DITCH	E. COLI

### SUMMARY OF CHANGES SINCE THE 2014 303(D) LIST WAS SUBMITTED TO U.S. EPA ON APRIL 1, 2014

Tables 16-19 provide the following summary information on the changes made to the draft 303(d) list since its submittal to U.S. EPA on April 1, 2014 and the finalized 303(d) listing included with this addendum:

- Table 16 summarizes the changes made to the 2014 303(d) list since it was submitted to U.S. EPA on April 1, 2014 in terms of the total number of individual assessment units.
- Table 17 provides a summary of the changes made to the 2014 303(d) list since it was submitted to U.S. EPA on April 1, 2014 in terms of individual assessment units, waterbody type and their associated stream miles and lake acres.
- Table 18 provides a summary of the changes made to the 2014 303(d) list since its submission in terms of the total number of impairments.
- Table 19 tracks changes made to the 2014 303(d) list since its submission on April 1, 2014 by impairment type.

As a result of these changes, IDEM's 2014 303(d) list now contains a total of three thousand six hundred two (3,602) individual impairments compared to three thousand six hundred thirty seven (3,637) individual impairments submitted to U.S. EPA on April 1, 2014 (assessment units with multiple impairments are listed once for each impairment). Attachment 5 of this addendum includes all impairments currently identified in

Categories 5A and 5B of the Consolidated List, which together comprise IDEM's finalized 2014 303(d) List of Impaired Waters.

Table 16: Additional changes made to IDEM's 2014 303(d) list since its April 1, 2014 submission to U.S. EPA in terms of individual assessment units in terms of waterbody type and their associated stream miles or lake acres.

NATURE OF CHANGES SUBMITTED WITH THIS ADDENDUM	NUMBER OF STREAM ASSESSMENT UNITS	TOTAL STREAM MILES	NUMBER OF LAKE ASSESSMENT UNITS	TOTAL LAKE ACRES
<b>DELISTINGS</b>				
Impairments removed from Category 5 to Category 4A based on TMDLs approved by U.S. EPA after April 1, 2014*	35	351	0	0
Impairments removed from Category 5 to Category 4A based on IDEM's review of segmentation tracking for previously approved TMDLs	23	192	0	0
Impairments removed from Category 5 based water quality improvements**	5	57	0	0
Impairments removed from Category 5 Based on IDEM's Routine Review for Errors and Omissions on its 303(d) List	3	97	0	0
Impairments removed from Category 5 based on changes in segmentation	1	1	0	0
<b>ADDITIONS</b>				
Impairments added to Category 5 based on comments received on the draft 303(d) list	17	117	0	0
Impairments added to Category 5 based on water quality assessments completed after IDEM's submittal of its 2014 IR on April 1, 2014	3	34	0	0
Impairments added to Category 5 based on changes in segmentation	3	33	0	0

\*This number does not include the sixty one (62) impairments placed directly into Category 4A with this addendum (Tables 4 and 5).

\*\*This number does not include the additional four (4) water quality improvements resulting from TMDL implementation (Table 10).

Table 17: Tracking of the additional changes made to the 2014 303(d) list since its submission to U.S. EPA on April 1, 2014 and summary values for the current list 2014 303(d) list based on the changes submitted to U.S. EPA with this addendum in terms of individual assessment units, waterbody type including their associated stream miles and lake acres.

303(D) LIST	TOTAL NUMBER OF ASSESSMENT UNITS	NUMBER OF STREAM ASSESSMENT UNITS	TOTAL STREAM MILES	NUMBER OF LAKE ASSESSMENT UNITS	TOTAL LAKE ACRES
2014 303(d) List submitted to U.S. EPA on April 1, 2014	2,356	2,353	20,601	132	60,254*
Net changes made to the 2014 303(d) List since its submittal to U.S. EPA	2,449	2,317	20,214	132	60,254*
<b>2014 303(D) LIST INCLUDING CHANGES SUBMITTED WITH THIS ADDENDUM</b>	<b>1,819</b>	<b>1,707</b>	<b>12,632</b>	<b>121</b>	<b>43,613*</b>

\*These totals do not include Lake Michigan (154,176 acres).

## IR Appendix I: Addendum to Indiana's 303(d) List IDEM Submitted to U.S. EPA on April 1, 2014

Table 18: Tracking of changes made to the 2012 303(d) list since its submission to U.S. EPA on April 1, 2012 and summary values for the most current 2012 303(d) list based on the changes submitted to U.S. EPA with this addendum in terms of the number of impairments.

<b>TOTAL NUMBER OF IMPAIRMENTS ON THE 303(D) LIST SUBMITTED ON APRIL 1, 2014</b>	<b>3,637</b>
Impairments removed from Category 5 to Category 4A based on TMDLs approved by U.S. EPA after April 1, 2014*	42
Impairments removed from Category 5 to Category 4A based on IDEM's review of segmentation tracking for previously approved TMDLs	23
Impairments removed from Category 5 based water quality improvements	6
Impairments removed from Category 5 Based on IDEM's Routine Review for Errors and Omissions on its 303(d) List	5
Impairments removed from Category 5 based on changes in segmentation	1
<b>DELISTINGS TOTAL</b>	<b>77</b>
Impairments added to Category 5 based on comments received on the draft 303(d) list	19
Impairments added to Category 5 based on water quality assessments completed after IDEM's submittal of its 2014 IR on April 1, 2014	4
Impairments added to Category 5 based on changes in segmentation	3
<b>ADDITIONS TOTAL</b>	<b>26</b>
<b>TOTAL NUMBER OF IMPAIRMENTS ON INDIANA'S 2014 303(D) LIST INCLUDING CHANGES SUBMITTED WITH THIS ADDENDUM</b>	<b>3,586</b>

IR Appendix I: Addendum to Indiana's 303(d) List IDEM Submitted to U.S. EPA on April 1, 2014

Table 19: Changes made to the 2014 303(d) list since its submission to U.S. EPA on April 1, 2014 and summary values for the most current 2014 303(d) list based on the changes submitted with this addendum by impairment type.

CAUSE OF IMPAIRMENT	NUMBER OF IMPAIRMENTS ON THE 2014 303(D) LIST SUBMITTED TO U.S. EPA ON APRIL 1, 2014	TOTAL NUMBER OF IMPAIRMENTS ON THE CURRENT 303(D) LIST INCLUDING CHANGES SUBMITTED TO U.S. EPA WITH THIS ADDENDUM
ALGAE	12	12
AMMONIA	11	10
CHLORIDE	19	19
FREE CYANIDE	5	6
DIOXIN (WATER)	69	69
DISSOLVED OXYGEN	298	298
E. COLI	1,305	1,257
IMPAIRED BIOTIC COMMUNITIES	748	745
NUTRIENTS	223	223
OIL AND GREASE	5	5
PESTICIDES	3	3
PH	24	24
PHOSPHORUS	50	50
SILTATION	2	0
SULFATE	1	1
TASTE AND ODOR	12	12
PCBs (FISH TISSUE)	649	651
PCBs (WATER)	69	69
TOTAL MERCURY (FISH TISSUE)	70	70
TOTAL MERCURY (WATER)	62	62
<b>TOTAL</b>	<b>3,637</b>	<b>3,586</b>



## REFERENCES CITED

Code of Federal Regulations (CFR):

<http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR>

Indiana Code (IC): <http://www.in.gov/legislative/ic/code/>

U. S. Environmental Protection Agency. 1986. *Ambient Water Quality Criteria for Bacteria - 1986*. Washington, D.C.: U.S. Environmental Protection Agency. EPA 440/5-84-002.

U. S. Environmental Protection Agency. 1997. *Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement*. Washington, D.C.: U.S. Environmental Protection Agency. EPA 841-B-97-002B.

U. S. Environmental Protection Agency. 2000. *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health*. Washington, D.C.: U.S. Environmental Protection Agency. EPA 823-R-01-001.

U. S. Environmental Protection Agency. 2001. *Memorandum to Regions 1-10 Water Division Directors Regarding the 2002 Integrated Water Quality Monitoring and Assessment Report Guidance*. Washington, D.C.: U.S. Environmental Protection Agency.

U. S. Environmental Protection Agency. 2003. *Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act*. Washington, D.C.: U.S. Environmental Protection Agency.

U. S. Environmental Protection Agency. 2005. *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act: Public Review Draft*. Washington, D.C.: U.S. Environmental Protection Agency.

U. S. Environmental Protection Agency. 2006. *Memorandum to Regions 1-10 Water Division Directors Regarding Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions*. Washington, D.C.: U.S. Environmental Protection Agency.

U. S. Environmental Protection Agency. 2009. *Memorandum to Regions 1-10 Water Division Directors Regarding Information Concerning 2010 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions*. Washington, D.C.: U.S. Environmental Protection Agency.

U. S. Environmental Protection Agency. 2010. *Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion*. Washington, D.C.: U.S. Environmental Protection Agency. EPA 823-R-10-001.